

Amendments to the Claims:

Please amend claims 1, 4, 19, and 20 in accordance with the list of claims that begins on the following page, and which replaces all prior versions of claims in the application.

List of Claims:

1. (currently amended) A machine readable data storage medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method for responding to an inquiry, the method comprising the following operations:
 - identifying a Disk Array System as a class of device to be managed;
 - identifying subcomponents of the Disk Array System;
 - receiving the inquiry;
 - receiving a unique ID for the Disk Array System;
 - obtaining information from a CIMOM;
 - wherein obtaining information from the CIMOM includes, given the unique ID for the Disk Array System, obtaining, in one step: information regarding all component Storage Pools of the Disk Array System[.,] and [[obtaining]] information regarding all component Volumes of the Disk Array System;
 - wherein obtaining information from the CIMOM further includes obtaining, in one step: information about all Disk Array Systems managed by the CIMOM, and information about all Volumes, Disks, Disk Groups, and Storage Pools corresponding respectively with each of the Disk Array Systems managed by the CIMOM, and information about relationships between all of the corresponding Volumes, Disks, Disk Groups, and Storage Pools;
 - creating at least one Storage Object, wherein creating the at least one Storage Object includes identifying entities attached to the Disk Array System, and identifying parent-child relationships between the entities;
 - populating the at least one Storage Object with information received from the CIMOM;
 - wherein the at least one Storage Object includes a Storage Object corresponding with the Disk Array System; and
 - sending the at least one Storage Object to a calling function.

2. (previously presented) The machine readable data storage medium of claim 1, wherein the obtaining operation comprises using a CIM Client API to obtain requested information from the CIMOM.

3. (previously presented) The machine readable data storage medium of claim 1, wherein the operation of creating at least one Storage Object comprises creating a set of Storage Objects.

4. (currently amended) A machine readable data storage medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method for responding to an inquiry, the method comprising the following operations:

identifying a Disk Array System as a class of device to be managed;

identifying subcomponents of the Disk Array System;

receiving the inquiry;

receiving a unique ID for the Disk Array System;

obtaining information from a CIMOM;

wherein obtaining information from the CIMOM includes, given the unique ID for the Disk Array System, obtaining, in one step: information regarding all component Storage Pools of the Disk Array System and information regarding all component Volumes of the Disk Array System;

creating at least one Storage Object, wherein creating the at least one Storage Object includes identifying entities attached to the Disk Array System, and identifying parent-child relationships between the entities;

populating the at least one Storage Object with information received from the CIMOM;

sending the at least one Storage Object to a calling function;

wherein the at least one Storage Object includes a Storage Object corresponding with the Disk Array System;

~~The machine readable data storage medium of claim 1,~~

wherein obtaining information from the CIMOM includes obtaining, in one step: information about all Disk Array Systems managed by the CIMOM, and information about all Volumes, Disks, Disk Groups, and Storage Pools corresponding respectively with each of the Disk Array Systems managed by the CIMOM, and information about relationships between all of the corresponding Volumes, Disks, Disk Groups, and Storage Pools[.];

wherein the operations are performed as an intermediary between a CIM client application and a CIM Client API;

wherein each Storage Object is created by using a Java package comprising classes that define a plurality of storage entity objects;

wherein the plurality of storage entity objects include Disk Array System, Storage Pool, Volume, Host System, FCPort, and Disk, objects;

wherein the Disk Array System object is a top level object;

wherein at least one object other than the Disk Array System object is a subcomponent of an object other than the Disk Array System object;

wherein the creating operation comprises creating a plurality of Storage Objects, and wherein the Storage Objects have associations to each other that are consistent with corresponding storage entities' relationships modeled in a SMI/Bluefin profile;

wherein the creating operation comprises creating a plurality of Storage Objects, and wherein properties of each Storage Object map directly to properties of at least one CIM Class used to represent a corresponding storage entity;

wherein the inquiry is received from a SRM CIM Client Application;

wherein receiving the inquiry includes receiving a unique ID for a Storage Pool, and wherein the operations further comprise obtaining a Storage Object corresponding with the Storage Pool, given the unique ID for the Storage Pool;

wherein the inquiry includes the unique ID of a designated storage entity, and comprises a request for all storage entities of a specified type associated with the designated storage entity;

wherein the inquiry includes the unique ID of an identified top level storage entity, and wherein the receiving, obtaining, creating, populating, and sending operations are repeated to obtain information concerning the identified top level storage entity and all of the components of the identified top level storage entity.

5. (previously presented) The machine readable data storage medium of claim 1, wherein each Storage Object is created by using a Java package comprising classes that define a plurality of storage entity objects.

6. (previously presented) The machine readable data storage medium of claim 5, wherein the plurality of storage entity objects include Disk Array System, Storage Pool, Volume, Host System, FCPort, and Disk, objects.

7. (previously presented) The machine readable data storage medium of claim 6, wherein the Disk Array System object is a top level object, and wherein each object other than the Disk Array System object is associated as a component of the Disk Array System object.
8. (previously presented) The machine readable data storage medium of claim 6, wherein the Disk Array System object is a top level object, and wherein at least one object other than the Disk Array System object is a subcomponent of an object other than the Disk Array System object.
9. (previously presented) The machine readable data storage medium of claim 1, wherein the creating operation comprises creating a plurality of Storage Objects, and wherein the Storage Objects have associations to each other that are consistent with corresponding storage entities' relationships modeled in a SMI/Bluefin profile.
10. (previously presented) The machine readable data storage medium of claim 1, wherein the creating operation comprises creating a plurality of Storage Objects, and wherein properties of each Storage Object map directly to properties of at least one CIM Class used to represent a corresponding storage entity.
11. (previously presented) The machine readable data storage medium of claim 1, wherein the inquiry is received from a SRM CIM Client Application.
12. (previously presented) The machine readable data storage medium of claim 1, wherein the inquiry is received from a CIM Discover Tool.
13. (previously presented) The machine readable data storage medium of claim 1, wherein receiving the inquiry includes receiving a unique ID for a Storage Pool; and the operations further comprise obtaining a Storage Object corresponding with the Storage Pool, given the unique ID for the Storage Pool.

14. (previously presented) The machine readable data storage medium of claim 1, wherein the inquiry includes the unique ID of a designated storage entity, and is a request for all storage entities of a specified type associated with the designated storage entity.

15. (previously presented) The machine readable data storage medium of claim 1, wherein the inquiry includes information identifying a top level storage entity type and information identifying a specific CIMOM, and is a request for information about all entities of the identified top level storage entity type that are managed by the identified CIMOM.

16. (previously presented) The machine readable data storage medium of claim 1, wherein the inquiry includes the unique ID of an identified top level storage entity, and wherein the receiving, obtaining, creating, populating, and sending operations are repeated to obtain information concerning the identified top level storage entity and all of the components of the identified top level storage entity.

17. (previously presented) The machine readable data storage medium of claim 1, wherein the inquiry includes the unique ID of a component storage entity, and wherein the receiving, obtaining, creating, populating, and sending operations are repeated to obtain information concerning the component storage entity and subcomponents of the component storage entity.

18. (previously presented) The machine readable data storage medium of claim 1, wherein the inquiry includes the unique ID of a component storage entity, and wherein the receiving, obtaining, creating, populating, and sending operations are repeated to obtain information concerning the component storage entity and the component storage entity's relationships to other components.

19. (currently amended) A computing system, comprising:
a memory; and
a processing device coupled to the memory, wherein the processing device is programmed to perform operations for responding to an inquiry, the operations comprising:
identifying a Disk Array System as a class of device to be managed;

identifying subcomponents of the Disk Array System;
receiving the inquiry from a calling function;
receiving a unique ID for the Disk Array System;
obtaining requested information from a CIMOM;
wherein obtaining information from the CIMOM includes, given the unique ID for the Disk Array System, obtaining, in one step: information regarding all component Storage Pools of the Disk Array System[[,]] and [[obtaining]] information regarding all component Volumes of the Disk Array System;

wherein obtaining information from the CIMOM further includes obtaining, in one step: information about all Disk Array Systems managed by the CIMOM, and information about all Volumes, Disks, Disk Groups, and Storage Pools corresponding respectively with each of the Disk Array Systems managed by the CIMOM, and information about relationships between all of the corresponding Volumes, Disks, Disk Groups, and Storage Pools;

creating at least one Storage Object, wherein creating the at least one Storage Object includes identifying entities attached to the Disk Array System, and identifying parent-child relationships between the entities;

populating the at least one Storage Object with information received from the CIMOM;
wherein the at least one Storage Object includes a Storage Object corresponding with the Disk Array System; and

sending the at least one Storage Object to the calling function.

20. (currently amended) A method for responding to an inquiry, comprising the following operations:

identifying a Disk Array System as a class of device to be managed;

identifying subcomponents of the Disk Array System;

receiving the inquiry from a calling function;

receiving a unique ID for the Disk Array System;

obtaining requested information from a CIMOM;

wherein obtaining information from the CIMOM includes, given the unique ID for the Disk Array System, obtaining, in one step: information regarding all component Storage Pools

of the Disk Array System[[,]] and [[obtaining]] information regarding all component Volumes of the Disk Array System;

wherein obtaining information from the CIMOM further includes obtaining, in one step: information about all Disk Array Systems managed by the CIMOM, and information about all Volumes, Disks, Disk Groups, and Storage Pools corresponding respectively with each of the Disk Array Systems managed by the CIMOM, and information about relationships between all of the corresponding Volumes, Disks, Disk Groups, and Storage Pools;

creating a plurality of Storage Objects, wherein creating the plurality of Storage Object includes identifying entities attached to the Disk Array System, and identifying parent-child relationships between the entities;

populating the plurality of Storage Objects with information received from the CIMOM;
wherein the at least one Storage Object includes a Storage Object corresponding with the Disk Array System; and

sending the at least one Storage Object to the calling function; and
wherein properties of each Storage Object map directly to properties of at least one CIM Class used to represent a corresponding storage entity; and

wherein the obtaining operation comprises using a CIM Client API to obtain the requested information from the CIMOM.